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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,766	12/18/2001	Adrian Crisan	1662-55100 JMH (P01-3806)	4713

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EXAMINER	
ROMANO, JOHN J	
ART UNIT	**PAPER NUMBER**
2192	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/029,766	CRISAN ET AL.	
	Examiner	Art Unit	
	John J. Romano	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-9,11-16,18-20,27 and 28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4-9, 11-16, 18-20, 27 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. Applicant's amendment and response received October 2nd, 2006, responding to the July 3rd, 2006, Office action provided in the rejections of claims 1, 4-9, 11-16, 18-20 and 27-28, wherein claims 1, 4-9, 11-16, 18-20 and 27-28 remain pending in the application and which have been fully considered by the examiner.

The declaration filed on October 2nd, 2006 under 37 CFR 1.131 is sufficient to overcome the *Fish* reference. Applicant's arguments, with respect to the rejection(s) of claim(s) 1, 4-9, 11-16, 18-20 and 27-28 under *Fish* have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Doherty et al., US 7,080,134 (art being made of record and hereinafter **Doherty**) as disclosed below in the Claim Rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have

been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims **1, 4, 6, 7, 9, 11, 13, 15, 16, 18, 20, 27** and **28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Marsh et al., US 2002/0073304 A1 (hereinafter **Marsh**) and further in view of **Asco** et al., US 6,516,346, (hereinafter **Asco**) and Jennery et al., US 6,742,025 (hereinafter **Jennery**) and further in view of Doherty et al., US 7,080,134 (art being made of record and hereinafter **Doherty**).

In regard to claim **1**, **Marsh** discloses:

- "*A computer system, comprising:*

a central processing unit (CPU);..." (E.g., see Fig. 1 & Page 3, [0027]), wherein, the microprocessor is the CPU.

- "*...and a programmable read only memory (ROM) coupled to said CPU...*" (E.g., see Fig. 1 & Page 1, [0007]), wherein, the non-volatile memory may be a EEPROM as disclosed in paragraph [0007] which is both erasable and programmable. Also, it is shown in Figure 1 that the ROM or non-volatile memory is coupled to the microprocessor.

- "*... said ROM containing a digital image; ...*" (E.g., see Fig. 1 & Page 2, [0013]), wherein, instructions from the programmable non-volatile memory or ROM are inherently a digital image; therefore the ROM contains a digital image.

- "...*wherein said CPU programs its ROM during a system initialization ... wherein the system initialization further comprises a booting of said system...*" (E.g., see Fig. 4 & Page 5, [0048]), wherein, the flash application designated in the modified boot image, selected upon the next boot of the computer (system initialization), is erasing and then programming the non-volatile memory or ROM.
- "...*a connection to a network...*" (E.g., see Fig. 5 & Page 4, [0042]), wherein, the system is presented within a network configuration.
- "...*flashes the system ROM with the upgraded image if the upgraded image is available for said ROM.*" (E.g., see Fig. 6 and Page 5, Paragraph [0047] and [0048]), wherein, the delivered firmware is the received upgraded image and the flash application flashes the ROM and installs the upgraded image.

But **Marsh** does not expressly disclose "...*during the system initialization, said system sends a message to a server coupled to the network to determine whether an upgraded image is available for said ROM*" or "...*during the system initialization, said system receives an upgraded...*". However, **Asco** discloses:

- "...*said system sends a message to a server coupled to the network to determine whether an upgraded image is available for said ROM...*" (E.g., see Fig. 3 and Column 4, lines 26-56), wherein, the microcode is the upgraded BIOS image for a programmable ROM.

Marsh and **Asco** are analogous art because they are both concerned with the same field of endeavor, namely, a firmware upgrade via the Internet. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify **Marsh's** method for updating firmware with **Asco's** invention. The motivation to do so would have been to further achieve **Asco's** objective of "...making the upgrade process more user friendly..." (Page 1, lines 43-44). Each individual user would not have to find and remember details of Internet addresses for the microcode supplier. This would save time and increase productivity by letting the individual user focus on other tasks.

Marsh and **Asco** disclose the system as described above. But **Marsh** and **Asco** do not expressly disclose *"..."...during the system initialization, said system sends a message to a server coupled to the network ..."*. However **Jennery** discloses:

- *"...during the system initialization, said system sends a message to a server coupled to the network_..."* (E.g., see Figure 8A (72) & Column 13, lines 36-39), wherein the system (network device), during system initialization, sends or forwards a message (trigger data) to a server coupled to a network.
- *"...during the system initialization, said system receives an upgraded..."* (E.g., see Figure 8A (76) & Column 3, lines 39-44), wherein the system (network device), during system initialization or boot sequence, receives (trigger data) from a server coupled to a network.

Jennery, and the combined teaching of **Marsh** and **Asco,** are analogous art because they are both concerned with the same field of endeavor, namely, an automated method to update software. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the combined teaching method for updating software with **Jennery's** invention. The motivation to do so would have been to further achieve **Marsh's** objective of "...avoiding manual intervention..." (Page 2, Paragraph [0013]), and **Asco's** objective as disclosed above.

Marsh, Asco and **Jennery** disclose the system as described above. But they do not expressly disclose "...*before loading any portion of the operating system in a random access memory associated with the CPU*..." However **Doherty** discloses:

- "...*before loading any portion of the operating system in a random access memory associated with the CPU*..." (E.g., see Fig. 2 & Column 1, lines 23-36), wherein at boot up before loading an operating system into main memory, a client may request instructions which install an operating system. Additionally, it should be noted that **Doherty** also discloses that the BIOS 220 is distinct from an operating system that client may boot to during boot-up (see Column 4, lines 4-7)

Doherty, and the combined teaching of **Marsh, Asco** and **Jennery,** are analogous art because they are both concerned with the same field of endeavor, namely, an automated method to update software. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use **Marsh's** teaching of updating software by flashing the ROM upon startup (see **Marsh**

above), with **Doherty's** teaching of receiving the instructions to do so during start up as well. The motivation to do so would have been to further achieve **Marsh's** objective of "...avoiding manual intervention..." (Page 2, Paragraph [0013]), and **Asco's** objective as disclosed above.

In regard to claim **4**, claim **4** is rejected as a system of previously disclosed claim **1**, wherein the corresponding limitations of claim **4** are addressed in claim **1**.

In regard to claim **6**, **Marsh, Asco, Jennery** and **Doherty** disclose the system of claim **1** above. But in claim **1**, they did not disclose expressly "...*wherein the message includes an indication of the version of the ROM's current image.*" However, **Asco** discloses:

- "...*wherein the message includes an indication of the version of the ROM's current image.*" (E.g., see Fig. 3 & Column 1, lines 48-63), wherein, the microcode level is the version of the ROM's current image.

In regard to claim **7**, **Marsh, Asco, Jennery** and **Doherty** disclose the system of claim **1** above. But in claim **1**, they did not disclose expressly "...*wherein the message includes an indication of the class of the ROM.*" However, **Asco** discloses:

- "...*wherein the message includes an indication of the an indication of the class of the ROM.*" (E.g., see Fig. 3 & Column 1, lines 48-63), wherein, the relevant hardware configuration is an indication of the class of the ROM.

In regard to claim **9**, claim **9** is rejected as a method version of claim **1**. Correspondingly, **Marsh, Asco, Jennery** and **Doherty** disclose the limitations of claim **9** as described above in claim **1**. Thus the limitations are met for claim **9** as disclosed in the respective above claims.

Respectively, claims **11, 13 and 15** are rejected as method versions of claims **4, 6 and 7**. Likewise, the limitations of the aforementioned claims are disclosed as described in their corresponding claims. Thus, the limitations are met for claims **11, 13 and 15**.

In regard to claim **16**, **Marsh** discloses "*A ROM image system...*" as disclosed in claim **1**, wherein the system of claim **1** is presented within a network configuration. But **Marsh** does not disclose expressly "*...a server; and a database accessible by said server, said database storing information regarding ROM images; wherein said server receives a message from computer to determine if an upgrade exists for the computer's ROM image, uses said information to determine if an upgrade is available for the computer's ROM image and transmits a message to the computer indicating whether an upgrade is available*" or a "*...message from a computer that is currently undergoing a system initialization...*" and "*...transmits a message to the computer indicating whether an upgrade is available during the system initialization of the computer.*" However, **Asco** discloses:

- "*...comprising: a server; and a database accessible by said server, said database storing information regarding ROM images; wherein said server receives a message from computer to determine if an*

upgrade exists for the computer's ROM image, uses said information to determine if an upgrade is available for the computer's ROM image and transmits a message to the computer indicating whether an upgrade is available." (E.g., see Figure 2 & Column 1 lines 45 - 63), wherein the remote system is the server and the database associated with the remote system contains current microcode level and configuration information regarding the computer's ROM image. The notification to the computer system is the message indicating that an updated image is available.

But, **Asco** does not expressly disclose a "*...message from a computer that is currently undergoing a system initialization...*" and "*...transmits a message to the computer indicating whether an upgrade is available during the system initialization of the computer.*" However, **Jennery** discloses:

- "*...message from a computer that is currently undergoing a system initialization...*" (E.g., see Figure 8A (72) & Column 13, lines 36-39), wherein the system (network device), during system initialization, sends or forwards a message (trigger data) to a server coupled to a network..
- "*...transmits a message to the computer indicating whether an upgrade is available during the system initialization of the computer.*" E.g., see Figure 8A (76) & Column 3, lines 39-44), wherein the system (network

device), during system initialization or boot sequence, receives (trigger data) from a server coupled to a network.

The remaining limitations are met as disclosed in claim **1**.

In regard to claim **18,** the rejections of base claim **16** are incorporated as explained above. Furthermore, **Asco** discloses:

- "*...said response includes a pointer to where an upgraded image is located.*" (E.g., see Figure 1 & Column 2, lines 23-27), wherein, the Internet address is a pointer to where an upgraded image is located.

In regard to claim **20, Marsh, Asco, Jennery** and **Doherty** disclose the method of claim **18** as explained above. Furthermore, **Asco** discloses:

- "*...said pointer includes an IP address.*" (E.g., see Column 2, lines 23 - 27), wherein, the Internet Address is a pointer, which includes an IP address.

In regard to claim **27**, claim **27** encompasses some limitations from claim **16** and claim **1**, and also includes further limitations disclosed by **Asco**. Claim **1** discloses a computer having a programmable ROM coupled to a server communicating with a network, during initialization, without execution of an operating system associated with the CPU. Claim **16** discloses a request to a server, including storage for a ROM image, and a computer requesting a ROM image update from the said server. But the aforementioned claims do not expressly disclose: "*...proxy enterprise ROM server to which the computers couple, said proxy enterprise ROM server communicating with a network external to the enterprise...*" or "*...a plurality of computers...*" or "*...includes a*

first storage area for an untested ROM image update, and a second storage area for an approved ROM image update..." or "... checks the second storage area for the approved ROM image update to be installed in the at least one of said computers, wherein the approved ROM image update comprises the untested ROM image update that has undergone at least one suitable approval test...". However, **Asco** discloses:

- "*... a proxy enterprise ROM server to which the computers couple, said proxy enterprise ROM server communicating with a network external to the enterprise...*" and "*...a plurality of computers...*". (E.g., see Figure 2 & Column 2, line 64 – Column 3, line 10), wherein, a proxy server to which computers are coupled is the enterprise ROM server. A wide are data processing network comprising a local network connected via the Internet is interpreted as an enterprise computing system comprising a plurality of computers

But, **Marsh, Asco, Jennery** and **Doherty** do not expressly disclose "*...includes a first storage area for an untested ROM image update, and a second storage area for an approved ROM image update..." or "... checks the second storage area for the approved ROM image update to be installed in the at least one of said computers, wherein the approved ROM image update comprises the untested ROM image update that has undergone at least one suitable approval test...*". However, it would have been obvious to one of ordinary skill in the art, to test the upgrade before deploying it. It would have been obvious because it is old and well known in the art that before an upgrade or revision is issued for deploying it should be tested. Therefore it would have

been obvious to include a first storage area for an untested ROM image update and to install the tested upgrade image as is well known in the art.

In regard to claim **28**, the rejections of base claim **1** are incorporated. Furthermore, **Jennery** discloses:

- "...*upon each occurrence of the system initialization*". (E.g., see Figure 8A (72) & Column 13, lines 36-39), wherein the system (network device), during system boot sequence, which happens on each occurrence of the system initialization, sends or forwards a message (trigger data) to a server coupled to a network.

3. Claims **5, 12** and **19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Marsh**, **Asco, Jennery** and **Doherty** as applied to claim **1** above, and further in view of Martinez, US ,594,757 (hereinafter **Martinez).**

In regard to claim **5**, **Marsh, Asco, Jennery** and **Doherty** disclose the system of claim **1** above. But in claim **1**, they did not disclose expressly "...*wherein said system receives a link to another server which provides the upgraded image*." However, **Martinez**, discloses:

- "...*wherein said system receives a link to another server which provides the upgraded image*." (E.g., see Fig. 3A & Column 2, line 65 – Column 3, line 2), wherein it would have been obvious to a person of ordinary skill in the art to store a web page on a server.

Martinez and the combined teachings of **Marsh, Asco, Jennery** and **Doherty,** are analogous art because they are both concerned with the same field of endeavor, namely, an upgradeable BIOS program. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement **Martinez's** limitation into the combined teaching method for updating firmware. The motivation to do so would have been to further decrease manual intervention by simply providing the URL to an executable rather than manually downloading it to a pre-specified server. The advantages would be time and cost savings.

Claim **12** is rejected as method versions of claim **5**. Likewise, the limitations of the aforementioned claim are disclosed as described. Thus, the limitations are met for claim **12**.

In regard to claim **19**, the rejections of base claim **18** are incorporated as explained above. Furthermore, **Martinez** discloses:

- "...*said pointer includes a URL.*" (E.g., see Figure 3A & Column 2, line 65 – Column 3, line 2), wherein the retrieved page is a pointer which includes a URL.

4. Claims **8** and **14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Marsh, Asco, Jennery** and **Doherty** as applied to claim **1** above, and further in view of **Olarig** (US 6,009,524).

In regard to claim **8**, **Marsh, Asco, Jennery** and **Doherty** disclose the system of claim **1** above. But in claim **1**, they did not disclose expressly "...*wherein said message*

includes an encryption key to be used to help assure the authenticity of the image."

However, **Olarig** discloses:

- "*...wherein said message includes an encryption key to be used to help assure the authenticity of the image.*" (E.g., see Fig. 2 & Column 4, lines 59-67), wherein, a dual-key digital-signature-verification system are used to assure authenticity.

Olarig and the combined teachings of **Marsh**, **Asco** and **Jennery** are analogous art because they are both concerned with the same field of endeavor, namely, an upgradeable BIOS program. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement **Olarig's** limitation into the combined teaching method for updating firmware. The motivation to do so would have been to assure authenticity of the BIOS program. Thereby, eliminating a tampered program that could have severe time and cost consequences in addition to security issues.

Claim **14** is rejected as a method version of claim **8**. Likewise, the limitations of the aforementioned claim are disclosed as described. Thus, the limitations are met for claim **12**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Romano whose telephone number is (571) 272-3872. The examiner can normally be reached on 8-5:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJR

TUAN DAM
SUPERVISORY PATENT EXAMINER